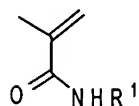


IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): ~~A composition~~ Composition for preparing
~~poly(meth)acrylimides and for producing poly(meth)acrylimide foams according to Figure 5,~~
~~characterized in that comprising~~
methacrylic anhydride,
~~and one, or two or more different, at least one N-methacrylamide:~~



N-methacrylamides [sic] $C_4H_6NOR^1$, according to Figure 6, and/or one, or two or more
different, and at least one primary amines amine: H_2NR^1 ; wherein was added to the
composition, where R^1 or R^2 [sic] may be identical or different are an is a substituted or an
unsubstituted alkyl or a substituted or an unsubstituted aryl radical which has comprising up
to 36 carbon atoms and in which oxygen atoms, nitrogen atoms, sulphur atoms, and
phosphorus atoms in the form of organic functionalities, e.g. an ether function, alcohol
function, acid function, ester function, amide function, imide function, phosphonic acid
function, phosphonic ester, phosphinic acid function, phosphinic ester function, sulphonic
acid function, sulphonic ester function, sulphinic acid function, sulphinic ester function,
silicon atoms, aluminium atoms and boron atoms, or else halogens, such as fluorine, chlorine,
bromine or iodine may also be present, R^1 and R^2 may be the methyl
group, the ethyl group, the n-propyl group, 2-propyl group, n-butyl group, 2-butyl group, 3-
methyl 2-butyl group, tert-butyl group, the isomers of the propyl, hexyl, heptyl group, the
isomers of the octyl group, e.g. the 2-ethylhexyl group, the lauryl group, stearyl group, the

~~phenyl group, benzyl group, alkylphenyl group, alkylbenzyl group, R^3 -PO(OR³)₂ group,~~
~~where R^3 is an alkyl or aryl radical having up to 20 carbon atoms.~~

Claim 2 (Currently Amended): The composition ~~Composition according to~~ of Claim 1, ~~characterized in that the composition comprises~~ further comprising a blowing agent ~~which is comprising preferably~~ an aliphatic alcohol having from 3 to 8 carbon atoms, a urea, a monomethyl urea, an and/or N,N'-dimethylurea, a and/or formamide, and/or water, or a combination thereof.

Claim 3 (Currently Amended): A process ~~Process~~ for producing a polymethacrylimide foam, ~~characterized in that~~ comprising polymerizing a mixture ~~composed of~~ comprising (A), (B), (C), (D), and (E) to give a polymer sheet; and foaming the polymer sheet at temperatures from 150 to 250°C; wherein (A) comprises

from 0.7 to 1.3 molar parts of one or more at least one primary amines amine:
 H_2NR^1 [[,]] ; where wherein R^1 is as described above is a substituted or an unsubstituted alkyl or a substituted or an unsubstituted aryl radical comprising up to 36 carbon atoms, and
from 0.7 to 1.3 molar parts of methacrylic anhydride; wherein (B) comprises
from 0.3 to 2.0 molar parts of methacrylonitrile,
from 0.7 to 2.5 molar parts of methacrylic acid and
from 0 to 0.2 molar part of other monomers having comprising vinyl
unsaturation, where wherein the ratio of the total of the molar parts of (B) and
(A) is (B)/(A) = from 0 to 1 million; wherein (C) comprises

from 0.5 to 15 per cent by weight, based on the total of the weights of components (A) and (B), of a blowing agent; wherein (D) comprises from 0.01 to 0.5 per cent by weight, based on the total of the weights of components (A) and (B), of ~~one or more~~ at least one polymerization ~~initiators~~ initiator; and wherein (E) comprises from 0 to 200 per cent by weight, based on the total of the weights of components (A) and (B), of at least one conventional ~~additives~~ additive ~~is polymerized to give a sheet, and then this polymer sheet is foamed at temperatures of from 150 to 250°C.~~

Claim 4 (Currently Amended): A process ~~Process~~ for producing a polymethacrylimide foam, ~~characterized in that~~ comprising polymerizing a mixture composed of comprising (A), (B), (C), (D), and (E) to form a polymer sheet; and foaming the polymer sheet at temperatures from 150 to 250°C; wherein (A) comprises

from 0.7 to 1.3 molar parts of ~~one or more~~ at least one primary ~~amines~~ amine: $\text{H}_2\text{NR}^1[[]]$; ~~where~~ wherein R^1 ~~is as described above~~ is a substituted or an unsubstituted alkyl or a substituted or an unsubstituted aryl radical comprising up to 36 carbon atoms,

from 1.4 to 2.6 molar parts of methacrylic anhydride, and

from 1.4 to 2.6 molar parts of methacrylonitrile; wherein (B) comprises

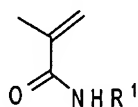
from 0.3 to 2.0 molar parts of methacrylonitrile,

from 0.7 to 2.5 molar parts of methacrylic acid and

from 0 to 0.2 molar ~~part~~ parts of other monomers ~~having~~ comprising vinyl unsaturation, ~~where~~ wherein the ratio of the total of the molar parts of (B) and (A) is (B)/(A) = from 0 to 1 million; wherein (C) comprises from 0.5 to 15 per cent by weight, based on the total of the weights of components (A) and (B), of a blowing agent; wherein (D) comprises from 0.01 to 0.5 per cent by weight, based on the total of the weights of components (A) and (B), of ~~one or more~~ at least one polymerization ~~initiators~~ initiator; and wherein (E) comprises from 0 to 200 per cent by weight, based on the total of the weights of components (A) and (B), of at least one conventional ~~additives~~ additive ~~is polymerized to give a sheet, and then this polymer sheet is foamed at temperatures of from 150 to 250°C.~~

Claim 5 (Currently Amended): A process ~~Process~~ for producing a polymethacrylimide foam, ~~characterized in that~~ comprising polymerizing a mixture ~~composed of~~ comprising (A), (B), (C), (D), and (E) to form a polymer sheet; and foaming the polymer sheet at temperatures from 150 to 250°C; wherein (A) comprises

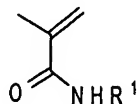
from 10^{-7} to 1.3 molar parts of ~~one or more~~ at least one ~~N-methacrylamides~~ N-methacrylamide:



~~[sic] C₄H₆NOR⁺~~ according to Figure 6, ~~where~~ wherein R¹ ~~is as described above~~ is a substituted or an unsubstituted alkyl or a substituted or an unsubstituted aryl radical comprising up to 36 carbon atoms,

from 0.7 to 1.3 molar parts of methacrylic anhydride, and
from 10^{-7} to 1.3 molar parts of methacrylonitrile, ~~where~~ wherein the total of
the molar parts of the methacrylonitrile and of the N-methacrylamide is from
0.7 to 1.3 molar parts; wherein (B) comprises
from 0 to 0.2 molar part of other monomers ~~having~~ comprising vinyl
unsaturation, ~~where~~ wherein the ratio of the total of the molar parts of (B) and
(A) is (B)/(A) = from 0 to 1 million; wherein (C) comprises
from 0.5 to 15 per cent by weight, based on the total of the weights of
components (A) and (B), of a blowing agent; wherein (D) comprises
from 0.01 to 0.5 per cent by weight, based on the total of the weights of
components (A) and (B), of ~~one or more~~ at least one polymerization ~~initiators~~
initiator; and wherein (E) comprises
from 0 to 200 per cent by weight, based on the total of the weights of
components (A) and (B), of at least one conventional ~~additives~~ additive
~~is polymerized to give a sheet, and then this polymer sheet is foamed at temperatures of from~~
~~150 to 250°C.~~

Claim 6 (Currently Amended): A process ~~Process~~ for producing a
polymethacrylimide foam, ~~characterized in that~~ comprising polymerizing a mixture
~~composed of~~ comprising (A), (B), (C), (D), and (E) to form a polymerized sheet; and foaming
the polymerized sheet at temperatures from 150 to 250°C; wherein (A) comprises
from 0.7 to 1.3 molar parts of ~~one or more~~ at least one N-methacrylamides N-
methacrylamide:



~~[sic] C₄H₆NOR¹~~ according to Figure 6, where wherein R¹ is as described
above is a substituted or an unsubstituted alkyl or a substituted or an
unsubstituted aryl radical comprising up to 36 carbon atoms,

from 0.7 to 1.3 molar parts of methacrylic anhydride, and

from 0.7 to 1.3 molar parts of methacrylonitrile;

wherein (B) comprises

from 0.3 to 2.0 molar parts of methacrylonitrile,

from 0.7 to 2.5 molar parts of methacrylic acid, and

from 0 to 0.2 molar part of other monomers ~~having~~ comprising vinyl

unsaturation, ~~where~~ wherein the ratio of the total of the molar parts of (B) and
(A) is (B)/(A) = from 0 to 1 million;

wherein (C) comprises

from 0.5 to 15 per cent by weight, based on the total of the weights of
components (A) and (B), of a blowing agent;

wherein (D) comprises

from 0.01 to 0.5 per cent by weight, based on the total of the weights of
components (A) and (B), of ~~one or more~~ at least one polymerization initiator
initiators; and wherein (E) comprises

from 0 to 200 per cent by weight, based on the total of the weights of
components (A) and (B), of at least one conventional additives additive

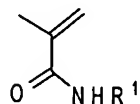
~~is polymerized to give a sheet, and then this polymer sheet is foamed at temperatures of from~~
~~150 to 250°C.~~

Claim 7 (Currently Amended): A process ~~Process~~ for producing a polymethacrylimide foam, ~~characterized in that~~ comprising polymerizing a mixture ~~composed of~~ comprising (A), (B), (C), (D) and (E) to form a polymer sheet; and foaming the polymer sheet at temperatures from 150 to 250 °C; wherein (A) comprises

from 0 to 2.6 molar parts of ~~one or more~~ at least one primary amines amine:

H_2NR^1 ~~[[,]]~~ ; ~~where wherein~~ wherein R^1 ~~is as described above is a~~ substituted or an unsubstituted alkyl or a substituted or an unsubstituted aryl radical comprising up to 36 carbon atoms,

from 0 to 5.2 molar parts of ~~one or more~~ at least one N-methacrylamides N-methacrylamide:



$\text{C}_4\text{H}_6\text{NOR}^1$ ~~according to Figure 6, where wherein~~ wherein R^1 ~~is as described above is a~~ substituted or an unsubstituted alkyl or a substituted or an unsubstituted aryl radical comprising up to 36 carbon atoms,

from >0 to 6.5 molar parts of methacrylic anhydride,

from 0 to 3.9 molar parts of methacrylonitrile, and

from 0 to 1.3 molar parts of methacrylic acid;

wherein (B) comprises

from 0.3 to 2.0 molar parts of methacrylonitrile,

from 0.7 to 2.5 molar parts of methacrylic acid, and

from 0 to 0.2 molar part of other monomers ~~having~~ comprising vinyl

unsaturation, ~~where wherein~~ wherein the ratio of the total of the molar parts of (B) and

(A) is $(\text{B})/(\text{A}) =$ from 0 to 1 million;

wherein (C) comprises

from 0.5 to 15 per cent by weight, based on the total of the weights of components (A) and (B), of a blowing agent;

wherein (D) comprises

from 0.01 to 0.5 per cent by weight, based on the total of the weights of components (A) and (B), of ~~one or more~~ at least one polymerization initiator initiators; and wherein (E) comprises

from 0 to 200 per cent by weight, based on the total of the weights of components (A) and (B), of at least one conventional ~~additives~~ additive

~~is polymerized to give a sheet, and then this polymer sheet is foamed at temperatures of from 150 to 250°C.~~

Claim 8 (Currently Amended): ~~Process~~ The process of according to any of Claims 3 to 7 Claim 3, characterized in that wherein the blowing agent used comprises an aliphatic alcohol having from 3 to 8 carbon atoms, a urea, a monomethyl urea, ~~and/or an~~ N,N'-dimethylurea, ~~and/or a~~ formamide, ~~and/or water~~, or a combination thereof.

Claims 9-13 (Canceled).

Claim 14 (New): A poly(meth)acrylimide foam produced by the process of Claim 3.

Claim 15 (New): A laminate comprising the poly(meth)acrylimide foam of Claim 14.

Claim 16 (New): An automobile comprising the poly(meth)acrylimide foam of Claim 14.

Claim 17 (New): A rail vehicle comprising the poly(meth)acrylimide foam of Claim 14.

Claim 18 (New): A watercraft comprising the poly(meth)acrylimide foam of Claim 14.

Claim 19 (New): A rotor comprising the poly(meth)acrylimide foam of Claim 14.

Claim 20 (New): The process of Claim 4, wherein the blowing agent comprises an aliphatic alcohol having from 3 to 8 carbon atoms, a urea, a monomethyl urea, an N,N'-dimethylurea, a formamide, water, or a combination thereof.

Claim 21 (New): The process of Claim 5, wherein the blowing agent comprises an aliphatic alcohol having from 3 to 8 carbon atoms, a urea, a monomethyl urea, an N,N'-dimethylurea, a formamide, water, or a combination thereof.

Claim 22 (New): The process of Claim 6, wherein the blowing agent comprises an aliphatic alcohol having from 3 to 8 carbon atoms, a urea, a monomethyl urea, an N,N'-dimethylurea, a formamide, water, or a combination thereof.

Claim 23 (New): The process of Claim 7, wherein the blowing agent comprises an aliphatic alcohol having from 3 to 8 carbon atoms, a urea, a monomethyl urea, an N,N'-dimethylurea, a formamide, water, or a combination thereof.

Claim 24 (New): The composition of Claim 1, wherein R¹ further comprises oxygen atoms, nitrogen atoms, sulphur atoms, phosphorus atoms, silicon atoms, aluminium atoms, boron atoms, fluorine atoms, chlorine atoms, bromine atoms, iodine atoms, or a combination thereof.

Claim 25 (New): The composition of Claim 1, wherein R¹ is a methyl group, an ethyl group, an n-propyl group, a 2-propyl group, an n-butyl group, a 2-butyl group, a 3-methyl-2-butyl group, a tert-butyl group, an isomer of the propyl, hexyl, and heptyl groups, an isomer of the octyl group, a 2-ethylhexyl group, a lauryl group, a stearyl group, a phenyl group, a benzyl group, an alkylphenyl group, an alkylbenzyl group, or an R³ PO(OR³)₂ group, wherein R³ is an alkyl or aryl radical having up to 20 carbon atoms.